

WARNING

Operator should exercise caution when using the platform to prevent lowering truck material flow gate on foot.

Do not attempt to insert block-off plates while roller is turning.

Stand clear of the spreader tow hitch while the towing vehicle is backing for a hookup. Make certain towing vehicle is stopped and the shifter level is in neutral before making adjustments or removing foreign material from the hopper.

DEATH

or severe injury may result if above precautions are not observed.

TM 5-3895-330-10

C 1

CHANGE }

No. 1 }

**HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 21 September 1973**

**Operator's Manual
SPREADER, AGGREGATE; TOWED:
FORCE FEED;
PNEUMATIC TIRES; 8-FT WIDTH
(BURCH CORP. MDL FF-8)
FSN 3895-130-3633**

TM 5-3895-330-10, dated 17 May 1971 is changed as follows:

**Page 44. Delete Appendix "B. BASIC ISSUE ITEMS LIST
----- B-1"**

Page B-1. Delete "Appendix B, Basic Issue Items."

By Order of the Secretary of the Army:

**CREIGHTON W. ABRAMS
General, United States Army
Chief of Staff**

Official:

**VERNE L. BOWERS
Major General, United States Army
The Adjutant General**

Distribution:

**To be distributed in accordance with DA Form 12-25B, (qty req
block no. 454) Operator maintenance requirements for Spreaders,
Aggregate.**

***TM 5-3895-330-10**

| | | |
|-------------------|---|-------------------------------|
| TECHNICAL MANUAL | } | HEADQUARTERS |
| No. 5-3895-330-10 | | DEPARTMENT OF THE ARMY |
| | | WASHINGTON, D.C., 17 May 1971 |

OPERATOR'S MANUAL

SPREADER, AGGREGATE; TOWED; FORCE FEED; PNEUMATIC TIRES; 8-FT WIDTH (BURCH CORP. MDL FF-8) FSN 3895-130-3633

| | Paragraph | Page |
|--|-----------|------|
| CHAPTER 1. INTRODUCTION | | |
| Section I. General | | |
| Purpose and scope----- | 1-1 | 1-1 |
| Maintenance forms and records ----- | 1-2 | 1-1 |
| Recommending improve- ments ----- | 1-3 | 1-1 |
| II. Description and data | | |
| Description ----- | 1-4 | 1-2 |
| Tabulated data ----- | 1-5 | 1-2 |
| CHAPTER 2. OPERATING INSTRUCTIONS | | |
| Section I. Operating procedures | | |
| Operating procedures ---- | 2-1 | 2-1 |
| Operating controls ----- | 2-2 | 2-5 |

* This manual supersedes portions of TM 5-3895-330-15, 6 November 1969.

| | Paragraph | Page |
|--|-----------|------|
| Section II. Operating under unusual conditions | | |
| Operation in salt water areas ----- | 2-3 | 2-8 |
| Operation in extreme cold | 2-4 | 2-8 |
| CHAPTER 3. MAINTENANCE INSTRUCTIONS | | |
| Section I. Lubrication ----- | | 3-1 |
| II. Preventive maintenance checks and services ----- | | 3-5 |
| III. Troubleshooting ----- | | 3-6 |
| APPENDIX A. REFERENCES ----- | | A-1 |
| B. BASIC ISSUE ITEMS LIST --- | | B-1 |

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Purpose and Scope

This manual is for your use in operating and maintaining the aggregate spreader.

1-2. Maintenance Forms and Records

Maintenance forms and records that you are required to use are explained in TM 38-750.

1-3. Recommending Improvements

You can improve this manual by recommending improvements using DA Form 2028 (Recommended Changes to Publications) or a letter, and mail direct to Commanding General, U. S. Army Mobility Equipment Command ATTN: AMSME-MPP, 4300 Goodfellow Boulevard, St. Louis, Mo., 63120. A reply will be furnished direct to you.

Section II. DESCRIPTION AND DATA

1-4. Description

The Aggregate Spreader, (fig. 1-1 and 1-2) is towed by a Military M-51, 5-ton dump truck. The spreader is a self-contained unit capable of spreading material in widths from four to eight feet by use of 12 inch block off plates. The spreader can operate in both forward and reverse directions at speeds up to 5 miles per hour. The components of the spreader are a receiving hopper, with an operator's platform; a clutch controlled feed roll with drive mechanism; and adjustable discharge gate and control mechanism; rubber tired support and traction wheels; a coupling and truck hitch; and a removable transport assembly. If you need a detailed description of any component of the aggregate spreader ask your supervisor to see TM 5-3895-330-24.

1-5. Tabulated Data

| | | |
|-----------------|-------|-----------|
| Overall length | ----- | 114 in. |
| Overall height | ----- | 47 in. |
| Overall width | ----- | 55 in. |
| Shipping weight | ----- | 2600 lbs. |

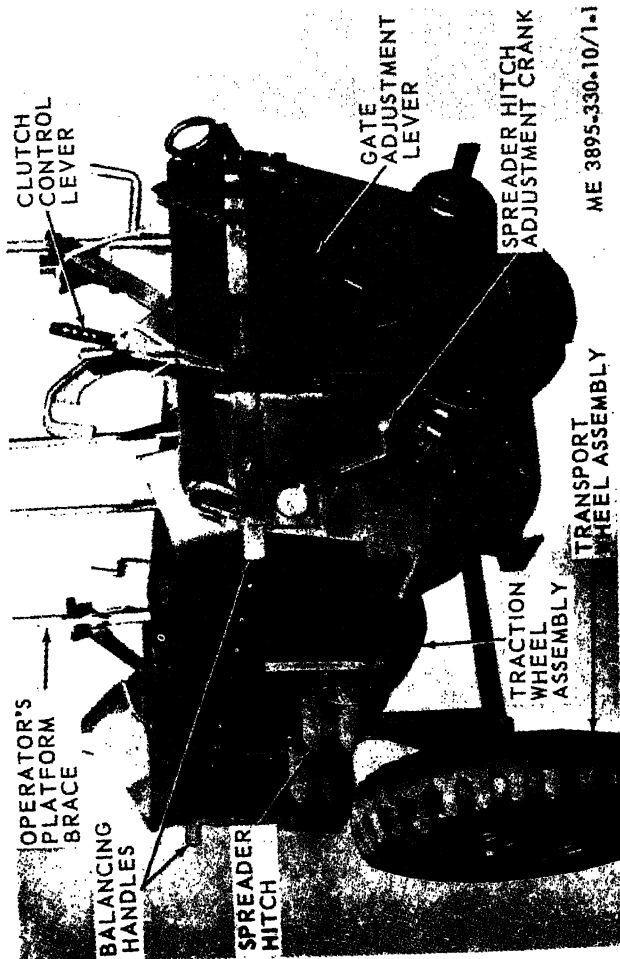


Figure 1-1. Force feed aggregate spreader (left three-quarter view).

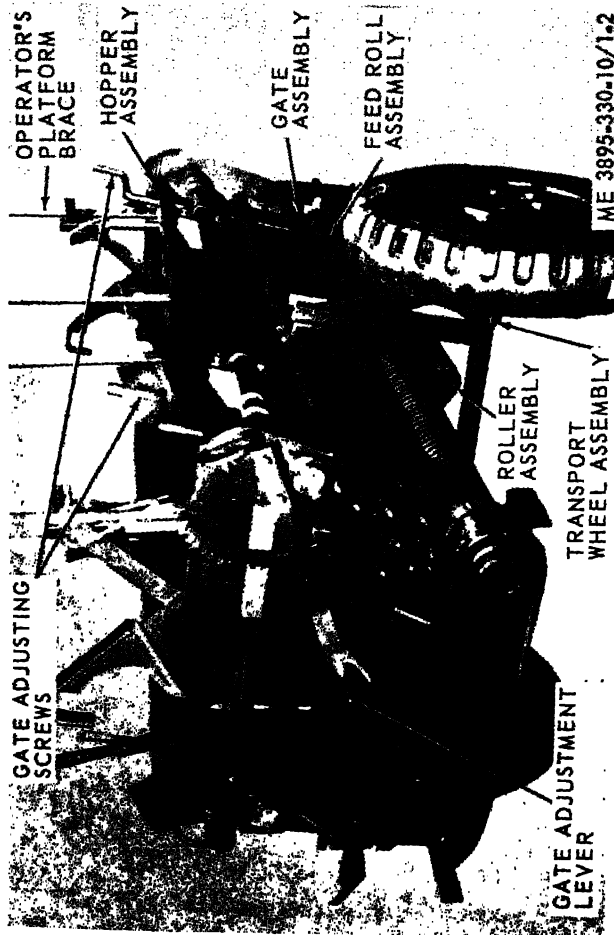


Figure 1-2. Force feed spreader (right three-quarter view).

CHAPTER 2

OPERATING INSTRUCTIONS

Section 1. OPERATING PROCEDURES

WARNING

If equipment fails to operate, refer to troubleshooting procedures in chapter 3.

2-1. Operating Procedures

a. Back the truck to the spreader. Extend the balancing handles and hold the spreader in a level position. By operating the spreader hitch adjusting crank, (fig. 1-1) raise or lower the spreader hitch to meet the tow hitch on the truck. The spreader will hitch and lock when the truck is backed into it.

WARNING

Stand clear of the spreader tow hitch while the towing vehicle is backing for a hookup. Make certain towing vehicle is stopped and the shifter level is in neutral before making

adjustments or removing foreign material from the hopper.

CAUTION

Be sure both latches lock on the shaft of the towing hitch.

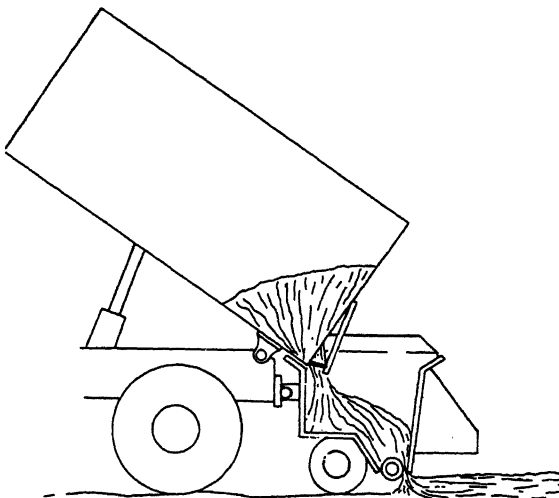
Operator should exercise caution when using the platform to prevent lowering truck material flow gate on foot.

The truck tailgate must clear the spreader so as to permit a smooth flow of material.

Do not attempt to insert block-off plates while roller is turning.

b. Adjust gate adjusting lever (fig. 1-2) for the desired flow (para 2-2). To operate the spreader in a forward motion push the clutch control lever from NEUTRAL to IN position (toward the center of the spreader) while it is stopped. To operate the spreader in a backward motion, stop the spreader and pull the clutch from neutral to OUT position (away from the center of the spreader).

c. The normal operating speed of the spreader is approximately 3- or 4-miles per hour. This speed will vary with the type of material being spread, the thick-

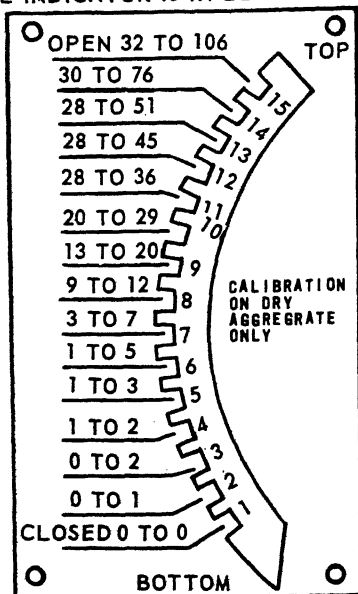


ME 3895-330-10/2-1 ①

1. SET INDICATOR FOR REQUIRED DEPTH OF SPREAD.
2. ENGAGE CLUTCH FOR FORWARD OR REVERSE OPERATION.
3. TRAVEL FORWARD OR REVERSE AND AGGREGATE WILL PASS OVER THE ROLLER ONTO THE GROUND.
4. SET GATE ADJUSTING SCREWS INDIVIDUALLY TO ACQUIRE A TAPERED SPREAD OF MATERIAL.

Figure 2-1. Normal operation of spreader (sheet 1 of 2).

GATE INDICATOR IS IN LBS PER SQ. YD.



ME 3895-330-10/2-1 ②

Figure 2-1. Normal operation of spreader (sheet 2 of 2).

ness of the spread, and the condition of the area being covered. Once started, a steady speed must be main-

tained in order to assure an even flow of aggregate. Normal operation of the spreader is illustrated in figure 2-1.

d. When moving from one job to another in a short move, proceed as follows. Leave the spreader hitched to the truck and raise the dump body about one third; then fasten a chain to each top corner of the tailgate and to the hopper. When the dump body is lowered, the spreader will clear the ground sufficiently to allow travel (fig. 2-2).

2-2. Operating Controls

a. *General.* This section locates, describes, and states the purpose of the controls of the aggregate spreader.

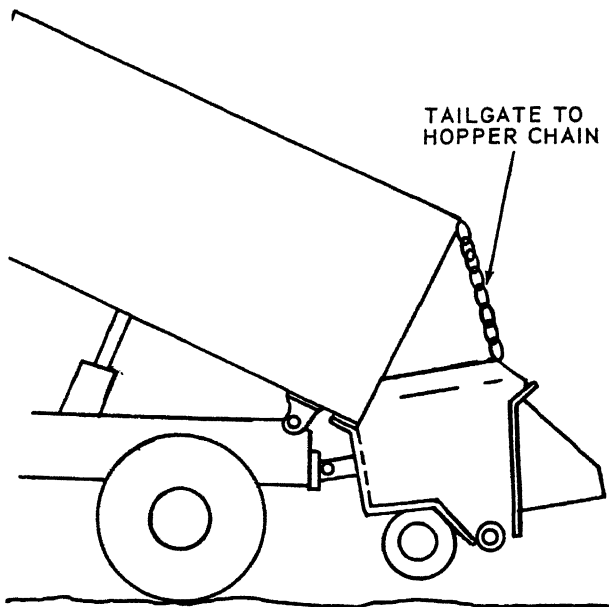
NOTE

All references to right and left will be as viewed from the operators platform.

b. *Clutch Control Lever.* The clutch control lever assembly is located on the left-hand side of the spreader. It is used to engage or disengage the agitator and feed roll assemblies (fig. 1-1 and 1-2).

CAUTION

Do not spread sand with this aggregate spreader.



ME 3895-330-10/2-2

Figure 2-2. Raised short haul position.

c. Gate Adjusting Lever. The gate adjusting lever is located on the left-hand side of the spreader and

raises or lowers the gate assembly. The maximum gate opening is 5 inches (fig. 1-1 and 1-2).

d. Spreader Hitch Adjusting Crank. The adjusting crank assembly raises or lowers the coupler hitch assembly by means of a screw and pantograph LINK ARRANGEMENT. The adjusting crank is located on the left-hand side of spreader (fig. 1-1 and 1-2).

CAUTION

To prevent jamming of the universal joint against the hopper support braces, do not operate the spreader hitch adjusting crank past the lowest spreader operating position.

e. Gate Adjusting Screw. There are two gate adjusting screws located directly in front of operator's platform. These adjusting screws are used for finer adjustments of the gate assembly than the gate adjustment lever can provide. These screws can be adjusted individually to acquire a tapered spread of material (fig. 1-2).

f. Block-Off Plates. The block-off plates are formed pieces of metal and when placed into the hopper, restrict the flow of material into the feed roll.

(1) *Inspection.* Inspect the block-off plates for damage such as bends or cracks.

(2) *Replacement.* Replace the block-off plates if damage is enough to restrict proper operation. Spreader must be empty to replace plates.

Section II. OPERATION UNDER UNUSUAL CONDITIONS

2-3. Operation in Salt Water Areas

The deterioration and corrosion of exposed metal is greatly accelerated in salt water areas. If the spreader has been operated in or around salt water, clean it thoroughly and lubricate frequently. See TM 5-3895-330-24 for lubrication instructions. Paint all exposed surfaces. Coat exposed parts of polished steel or other ferrous metals with rustproofing, or cover with a light coat of oil or grease.

2-4. Operation in Extreme Cold

Operating the aggregate spreader in extreme cold temperature presents special lubrication problems since lubricants that are too heavy will make the equipment difficult to operate. This will cause rapid wear on moving parts.

CHAPTER 3

MAINTENANCE INSTRUCTIONS

Section 1. LUBRICATION

LUBRICATION INSTRUCTIONS

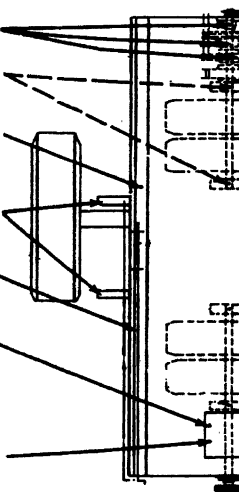
Reference: C9100-1L

Intervals are based on normal hours of operations. Adjust to compensate for abnormal operations and severe conditions during inactive periods, sufficient lubrication must be performed for adequate preservation.

Clean Parts with SOLVENT, dry-cleaning, or with OIL, fuel Diesel. Dry before lubricating.

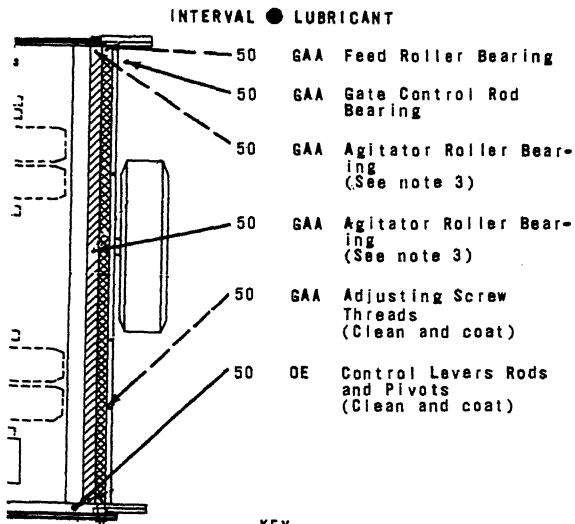
Lubricate points indicated by dotted arrow shafts on both sides of equipment.

LUBRICANT • INTERVAL

| | | | |
|---|-----|-----|--|
| Shifter Yolk | GAA | 50 |  |
| Drive Axle Bearings (4 fittings) | GAA | 50 | |
| Leveling Control Rod Threads (Clean and coat) | GAA | 50 | |
| Hitch Guide Trip (Clean and coat) | GAA | 50 | |
| Leveling Control Rod Threads (Clean and coat) | GAA | 50 | |
| Gearbox Fill and Level plug (Check level) (See key) | 60 | 50 | |
| Gearbox Drain Plug (Drain and refill) | | 500 | |

ME 3895-330-10/3-1

Figure 3-1. Lubrication instructions.



-KEY-

| LUBRICANTS | CAPACITY | ALL TEMPERATURES | INTERVALS |
|---|----------|------------------|--|
| OE-OIL, Engine, Heavy Duty | | OE 10 | Intervals given are in hours of normal operation |
| Oil Can Points | | | |
| Go-LUBRICATING OIL, Gear | | GO 140 | |
| Drive Axle Gearcase | 4 qt | | |
| GAA-GREASE, Automotive and Artillery | | GAA | |

ME 3895-330-10/3-2

Figure 3-2. Lubrication instructions—Continued.

NOTES

1. **OIL CAN POINTS.** Every 10 service hours, lubricate all control lever pivots, exposed threads and feedgate pivots with OE 10.

2. **LUBRICANTS.** The following is a list of lubricants with the military symbols and applicable specification numbers.

OE MIL-L-2104
GAA MIL-L-10924

GO MIL-L-2105

3. **AGITATOR ROLLER BEARINGS.** When agitator is in place check roller bearing grease fittings for damage after each load of aggregate is spread.

ME 3895-330-10/3-3

Figure 3-3. Lubrication instructions—Continued.

Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

To insure that the aggregate spreader is ready for operation at all times, it must be inspected systematically so that defects may be discovered and corrected before they result in serious damage or failure. The preventive maintenance checks and services to be performed are listed in table 3-1. Defects discovered during operation of the unit will be noted for future correction to be made as soon as operation has ceased.

Table 3-1. Preventive Maintenance Checks and Services

| B—Before Operation | | | D—During Operations | A—After Operation |
|------------------------------|---|---|--|----------------------|
| Interval and Sequence No. | | | Items to be inspected Procedure | |
| B | D | A | | |
| 1 | | | Lubrication Check the aggregate spreader for signs of improper or inadequate lubrication. | |
| 2 | | | Tires Inspect the tires for cracks or other defects. Check tires for correct pressure. Traction wheels (65 psi) | |
| 3 | | | Transport Wheels Assembly Check the transport wheels assembly for cracks, breaks, or bends. | |

Stop operation immediately if a deficiency is noted during operation which would damage the equipment if operation was continued. All deficiencies and shortcomings will be recorded together with the corrective action taken on DA Form 2024 (Equipment Maintenance and Inspection Worksheets) at the earliest possible opportunity.

Section III. TROUBLESHOOTING

This section contains troubleshooting information for locating and correcting most of the operating troubles which may develop in the aggregate spreader. Each malfunction for an individual component, unit; or system is followed by a list of tests or inspections which will help you to determine probable causes and corrective actions for you to take. You should perform the tests/inspections and corrective actions in the order listed. This manual cannot list all possible malfunctions that may occur, or all tests or inspections and corrective actions. If a malfunction is not listed (except when malfunction and cause are obvious), or is not corrected by listed corrective actions, notify your supervisor.

Table 3-2. Troubleshooting

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

DISCHARGE GATE DOES NOT OPEN.

Foreign matter holding discharge gate.

Clean out discharge gate opening.

APPENDIX A

REFERENCES

- | | |
|------------------|--|
| TM 38-750 | The Army Maintenance Management System |
| LO 5-3895-330-12 | Lubrication Order |

APPENDIX B
BASIC ISSUE ITEMS

| Federal Stock No. | Name | Quantity furnished with equipment |
|----------------------|---|--|
| 7510-889-3494 | BINDER, LOOSELEAF | 1 |
| 7520-559-9618 | CASE, OPERATIONAL MAINTENANCE PUBLICATION | 1 |
| | ARMY TECHNICAL MANUAL TM 5-3895-330-10 | 1 |

